# *Federal Smart Card Project Managers Meeting*

# Federal Identity Management and Smart Cards

Wednesday March 9 2005
09:30 to Noon
DC Renaissance Hotel
At 4th Annual Smart Card
Alliance Conference

**GSA**

**John G Moore**
**Chair Federal Smart Card Project Managers**
**Government Services Administration**
**johng.moore@gsa.gov**

# Federal Smart Card Project Managers Meeting

An Historic Moment

**A Standard for an interoperable Federal ID Smart Card**

**"A nation's talented people assume the burden of their country."**
**"How hard they must work!"**
 Mencius

IAB team worked so hard, great results, but more to be done

You'll hear from speakers who've have been actually doing the work

All speakers here deserve the credit, but not all are here who do

This work is a great example of public private partnership

# Federal Smart Card Project Managers Meeting

**You will hear speakers talking about the elements of HSPD12**

- **HSPD12 –** Common ID Standard for Federal Employees & Contractors
- **FIPS 201 –** Personal ID Verification of Federal Employees & Contractors
- **SP 800-73 –** Interfaces for PIV (including Smart Cards) Card Edge PIV
- **SP 800-76 –** Biometrics
- **SP 800-78 –** Crypto (proposed)
    Personal Identity Verification (PIV) of Federal Employees and Contractors
- **The new Federal ID Smart Card SP 800-73 (scheduled to be published next week)**
    - **PIV 1 – October 27 2005**
    - **PIV 2 – October 27 2006**
    - **FY07 Budget**
    Note –GSA Federal ID Management Handbook – Ralph Billeri of BearingPoint
- **I anticipate questions about Agency Implementation Plans and Lessons Learned**
    Note –Treasury's request for Agency get together on planning – Trung Nguyen
        http://csrc.nist.gov/piv-project/

# Homeland Security Presidential Directive HSPD12
## Issued August 27 2005

Policy for a Common Identification Standard for Federal Employees & Contractors = FIPS 201    <span style="color:red">DONE Feb 25 2005</span>
<span style="color:red">Next challenges – Biometrics – Then Implementation Plans</span>

"Agency Implementation plans 4 months later"

- "**strongly resistant to identity fraud**"
- "**rapidly authenticated electronically**"
- "**issued only by *authenticated* providers**"
- "**physical access to Federally controlled facilities and logical access to Federally controlled information systems**"

- http://www.whitehouse.gov/news/releases/2004/08/20040827-8.html
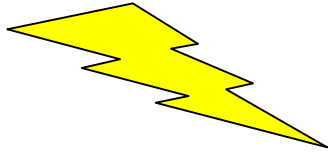
# Late Breaking News

## NIST SP 800-73 2nd draft released for public comment

- NIST Special Publication for Interface for Personal Identity Verification (PIV) draft 2 has been released for public comment.

  Responses are due back to NIST by 5:00pm EST March 22, 2005. (Exactly two weeks from today.) This document in conjunction with FIPS PUB 201 defines the federal identity or PIV card.
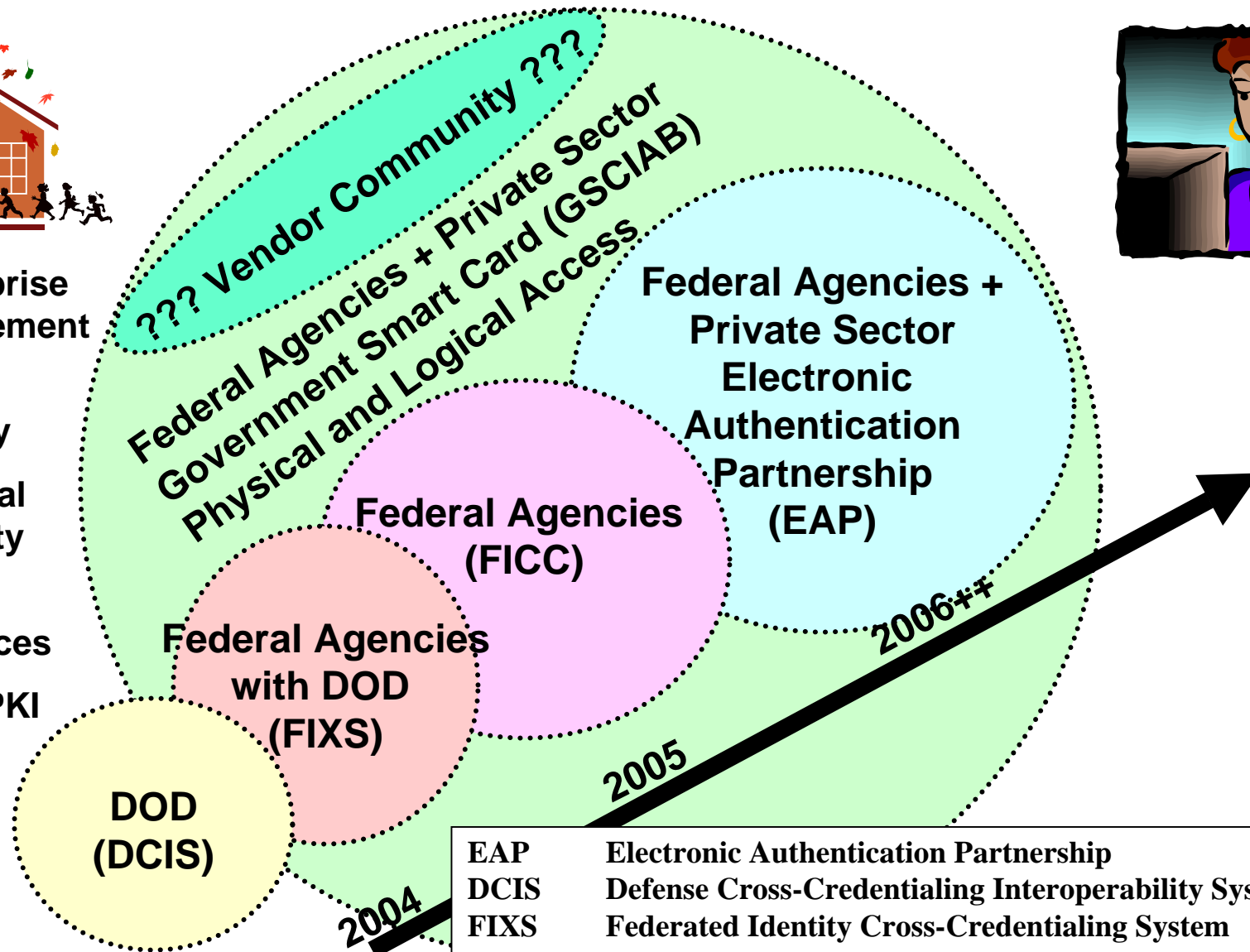
  http://csrc.nist.gov/publications/drafts/SP800-73-2ndDraft.pdf

**"Baldridge, Tim W. (MSFC-IS05)" <tim.w.baldridge@nasa.gov>**
03/08/2005 06:28 PM

# Tying Together ID Management Components



**Enterprise management**

**Info Security**

**Physical Security**

**Human Resources**

**eAuth PKI**

**Privacy**

??? Vendor Community ???

Federal Agencies + Private Sector
Government Smart Card (GSCIAB)
Physical and Logical Access

**Federal Agencies + Private Sector Electronic Authentication Partnership (EAP)**

**Federal Agencies (FICC)**

**Federal Agencies with DOD (FIXS)**

**DOD (DCIS)**

2004

2005

2006++

| | |
|---|---|
| EAP | Electronic Authentication Partnership |
| DCIS | Defense Cross-Credentialing Interoperability System |
| FIXS | Federated Identity Cross-Credentialing System |
| FICC | Federal Identity Credentialing Committee |
| GSCIAB | Government Smart Card Interagency Advisory Board |

Source: John G Moore, GSA, Dec 2004

# Goal of Smart Card Credential Interoperability

## Challenge – Fitting the Pieces Together

## Fitting the Pieces of SC Interoperability

**Getting agencies to read and process cards from different vendors**

Agency 1

Agency 2

Agency 3

Agency 4
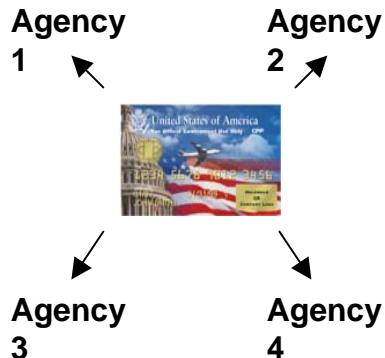
**Card makes major impact toward E-Gov and E-Commerce with access to buildings, internet, transport, purchases, authorizations, email and e-documents.**

ARCH    BSI    API

PHYS    LOGL    BIOM
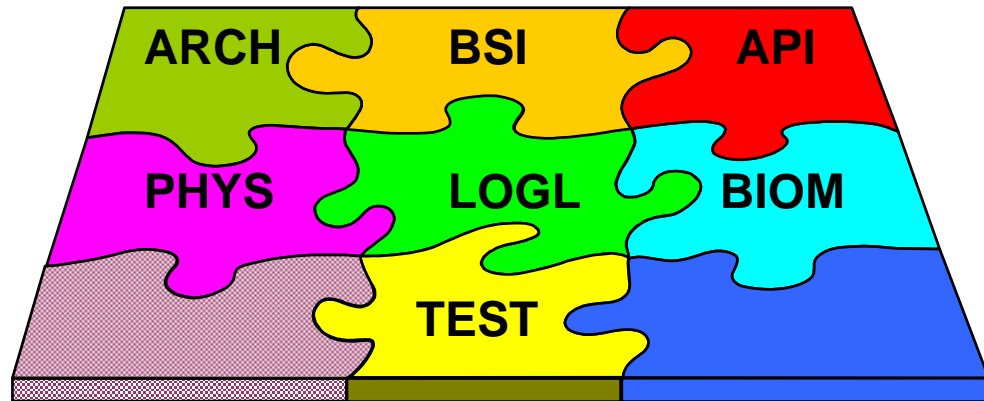
TEST

## Interoperability Components

- PHYS    Physical/authentication/ID
- LOGL    Logical/Crypto/PKI
- BIOM    Biometric Templates
- ARCH    Architecture
- BSI     Basic Service Interface
- API     Application Profile Interface
- TEST    Conformance Testing

# HSPD12 with IAB and FICC Working Groups

**Homeland Security Presidential Directive 12 Personal Identity Verification (PIV) of Federal Employees and Contractors**

**HSPD12 PIV Project OMB/NIST**

Thornton, Jeanette  OMB
Barker, Curt  NIST

**FICC**
Federal Identity Credentialing Committee

**GSC IAB**
Government Smart Card Interagency Advisory Board

Spencer, Judith GSA

Donelson, Bob Interior

**PAIIWG**
Physical Access Interagency Interoperability Working Group

**DMWG**
Data Model Working Group

**AWG**
Architecture Working Group

**CTWG**
Card Topology Working Group

**PWG**
Policy Working Group

**BIOM**
Biometrics Working Group

**IA**
Identity Assurance Wk Group

**SEIWG/FIC-N**
Physical Access

**CHUID**
Cardholder Unique ID

**NIST**
FIPS 201
SP 800-73

INCITS & ISO

**Topology**
Card Topology

**Policy**
Smart Card Policy

**BIOM**
Personnel Identity

*New*

**IA**
Sources & Background

Sulak, Mike STATE

Zok, Jim TRANS

Baldridge, Tim NASA

Finberg, Jack GSA

Moore, John GSA

Parsons, Steve TSA

White, M OPM

**TWG**
Technical Working Group (Industry)

**Smart Card Interoperability Reference Implementation**

Broghamer, Joe DHS
Dray, Jim NIST

Philip S. Lee – Smart Card Solutions, Inc. and John Moore GSA Dec 2004

# Key Websites for HSPD12

HSPD12 Homeland Security Presidential Directive 12 for Personal Identity Verification (PIV) of Federal Employees and Contractors
http://csrc.nist.gov/piv-project

Federal Smart Card Project Manager (GSA)
http://www.smart.gov/ – under What's New

Federal Identity Credentialing Committee
http://www.cio.gov/ficc

Smart Card Alliance
http://www.smartcardalliance.org

Source: John G Moore, GSA, Dec 2004

# Key Websites for Federal Identity Smart Card Credentialing and Electronic Authentication

- **GSA Government Smart Card Handbook**
  http://www.smart.gov/smartgov/whats_new.cfm
- **Smart Card Handbook (in MS Word format)**
  http://www.smart.gov/smartgov/information/smartcardhandbook.doc
- **Smart Card Handbook (in Adobe Acrobat format)**
  http://www.smart.gov/smartgov/information/smartcardhandbook.pdf

**Note – This Handbook complements the latest version of Policy Issuance regarding Smart Card Systems for Identification and Credentialing of Employees and provides more detailed guidance.**

- **Credentialing of Employees Policy Issuance**
  http://www.smart.gov/smartgov/information/scpfinal2004.doc
  **(full title is *Policy Issuance regarding Smart Card Systems for Identification and Credentialing of Employees*)**
- **GSA Survey of Federal Smart Card Projects**
  http://www.smart.gov/smartgov/information/smartcardhandbook.doc
- **e-Authentication**
  http://www.cio.gov/eauthentication
- **Federal Bridge Certification Authority**
  http://www.cio.gov/fbca
- **Federal Identity Credentialing Committee**
  http://www.cio.gov/ficc
- **Federal PKI Policy Authority**
  http://www.cio.gov/fpkipa
- **Federal PKI Steering Committee**
  http://www.cio.gov/fbisc

# Meeting Agenda 9:00 to 10:30

**09:30     Welcome to Meeting and Speaker Introduction**
*   **John Moore – GSA Chair of Federal Smart Card Project Managers**

**09:45     Review of NIST Activities, Timetable, Objectives and Progress**
*   **Jim Dray – Chief Smart Card Scientist for NIST**

**10:00     DOD and Technical Team Review of FIPS 201 and SP 800.73**
*   **Bob Gilson – DOD Contact Card Office and IAB Technical Team Leader**

**10:15     Coordination with OMB & Fed ID Management Handbook**
*   **Judy Spencer – GSA Chair of Federal Identity Credentialing Committee**

**10:30     Networking Break**

# Meeting Agenda 11:00 to Noon

**11:00     DHS View of FIPS 201 and SP 800.73 Activities**
- **Kevin Crouch – DHS Chief, Security Training & Technical Support**

**11:15     TSA Transportation Worker and Biometrics Update**
- **Steve Parsons – DHS TSA Deputy Program Manager of TWIC Program**

**11:30     A Review of IAB Activities and Timetable**
- **Tony Cieri – Representing IAB, Former Senior Leader of DOD Navy Smart Card Program**

**12:00     Adjournment**

# End

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Chair, Federal Smart Card Project Managers Group
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# Mainframes to Smart Cards

**Secure**
$10

**Personal**
$1K

**Network**
$100K

**Computing**
$10M

00's:
10,000,000,000's

90's:
100,000,000's

80's:
1,000,000's
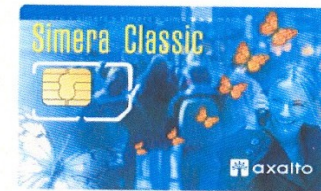
70's:
10,000's

# What is a Smart Card?

- Credit card sized plastic card

- Integrated circuit chip that enables storage and processing of information.

- Contact interface

  - Inserted into contact reader – makes physical contact with the reader.

- Contactless interface

  - Embedded antenna - communication with the reader without physical contact.

- Multi-technology cards can have both.

- Note ** It is not just the card, but the infrastructure

# What is Smart Card for Government?

## A Multi-Application, Multi-Tech Proximity Smart Card
## <u>A Hybrid / Composite Card</u>

Smart Card Chip *

Digital Photo

Mag Stripe on back

Barcode

RF *
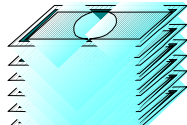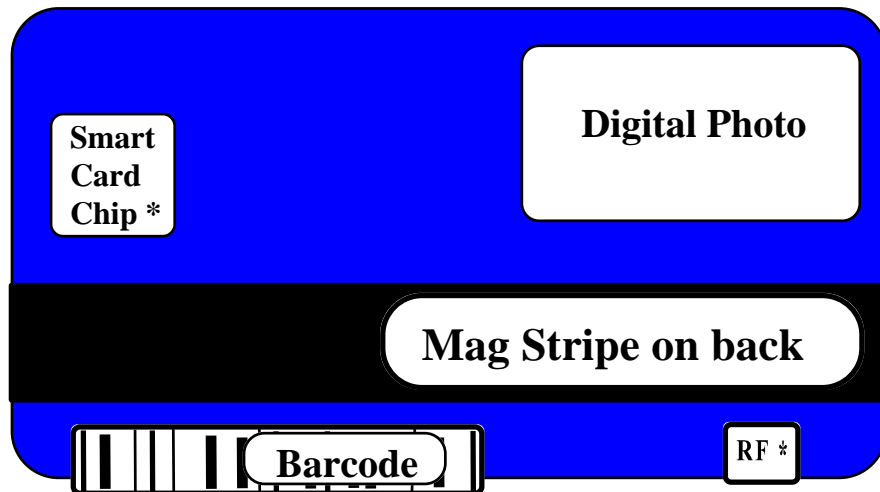
### <u>Authentication Architecture</u>
**Digital Photo, Biometrics, Finger Print, Voice Print, Hand Geometry, Iris Scan, Keyboard Dynamics, Digitized Signature, Signature Dynamics, Personal ID, Electronic Signature**

### <u>Encryption, Compression</u>
**Public/Private Key, Digital Signature (DSS), RSA for Off-line, Wireless, Telephony Hardware/Software Based, Crypto Co-Processor**

### <u>Uses</u>
**Pre-paid Money, Credit, Debit, Authorizations, ID, Certificate Secure eMail, eForms, Digital signature**

**\* Proximity / Combi Chip are imminent - combining smart card and radio frequency into one chip**
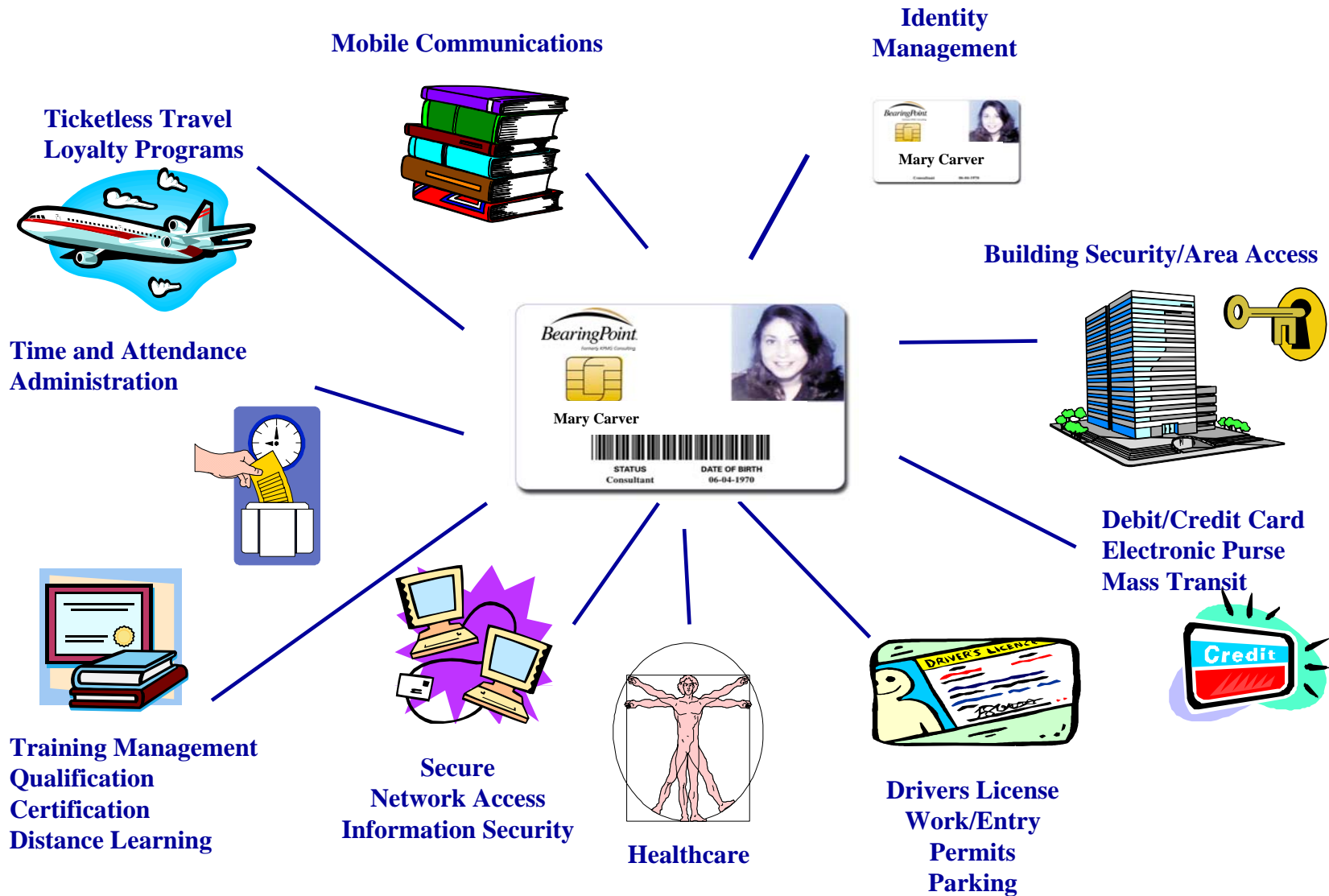
**\* RF indicates Radio Frequency Chip**

# Provides Cardholders with

- Portability, allowing users to carry their own identification information and to encrypt and decrypt sensitive data

- Access to buildings, information networks, and systems

- Higher level of assurance for secure email and e-transactions

- Increased security of information (magnetic stripe)

- A cost-effective and secure way to carry:

    – PKI credentials

    – Unique passwords/PINs

    – Biometric identifiers

    – Other Data (healthcare, financial)

# Smart Card Applications

Mobile Communications

Identity Management

Ticketless Travel Loyalty Programs

Mary Carver

Building Security/Area Access

Time and Attendance Administration

BearingPoint
Formerly KPMG Consulting

Mary Carver

STATUS    DATE OF BIRTH
Consultant    06-04-1970

Debit/Credit Card Electronic Purse Mass Transit

Training Management Qualification Certification Distance Learning

Secure Network Access Information Security

Healthcare

Drivers License Work/Entry Permits Parking

Source: Ralph Billeri, BearingPoint, Dec 2004

# Opportunity in the US

- 100 million mobile phone subscribers
- 180 million Internet subscribers
- 70 million wireless Internet subscribers
- 920 million financial issued cards
- 100 million Pay TV subscribers
- 18 million Fortune 200 employees
- 290 million tax paying American citizens
- 20+ millions of hardworking Government employees

# Biometrics

– Biometric systems are essentially pattern recognition systems.

– Electronic, optical sensors or scanning devices capture images, or measurements that are later compared:

  • Facial, fingerprint, iris, retina

  • Hand geometry, signature, voice, odor, gait

# Interoperability

- Any card in any device for any application

- <u>and why it's important</u>

- Remove potential barriers to adoption

- Broaden acceptance and increase use and functionality

- Bring smart cards to mainstream

- Convenience and security for end-users

# **Federal Policy Convergence** of SC, FICC and EAP

**Smart Card, Federal ID Credential & Elec. Authentication Partnership**

- **Transition of Electronic Authentication**
  - **From Federal to Federated**
- **Implications on IT Architecture**
  - **Significant impact to bring legacy software up-to-date for full benefits**
- **Draft Federal Identity Credential Smart Card Policy on www.smart.gov is now official policy, i.e. Presidential Directive**

  - **Issuance of Government Smart Card Handbook and Survey of Federal Smart Card Projects on www.smart.gov**
  - **Emergence of Electronic Authentication Partnership and Federal Identity Credentialing Committee**
  - **Project to develop Federal Identity Credential Reference Guidebook (was targeted December 2004, now April 2005)**

# Federal Identity Credential Smart Card Interoperability (and Operability)

- Interoperability definition - Any card / any reader / common application interface to basic card services
- Architecture - Card / Reader / Host / Software
- Physical Access, Authorization, ID Issuance
- Logical Access, Crypto / Public Key Infrastructure (PKI), Basic Services Interface
- Biometric Templates for multiple biometrics
- NIST-supported Conformance Test Suite
- Cross-credentialing backend to backend

# CBNL Capabilities

- Certificate Based Network Logon CBNL Novell COTS-based solution
  - (demonstrates an actual approach to logical access requirements)
- Supports authentication to Local Area Networks (LAN) with CAC and DoD PKI Certificates per DoDI 8500.2 and 8520.2.
  - Operating System Independent
- Addresses all Limitations/Deficiencies inherent with Microsoft Smart Card Logon Solution
- All DoD PKI Certificates are Supported, including software certificates
- Strong, rigid passwords are managed by the CBNL "daily"
- Temporary Smart Cards for those who "Forget Their CAC"
- Can skew/extend the "validity period" of a CRL or disable CRL checking altogether eliminating the dependency on CRL availability
- Supports Disconnected Mode Authentication
- Supports Biometric authentication

# Progression of US Smart Card
# Where are we now?

- **1987 - FMS Electronic Cert Smart Card**          **Pilot**
- **1989 – Agric. Smart Card Food Stamp**          **Pilots**
- **1991 - CardTech / SecurTech (CTST) Conf**       **Association**
- **1993 - Smart Card Forum (SCF) Founded**        **Association**
- **1994 - Ohio Statewide Food Stamp SC**         **Ltd Rollout**
- **1995 – GSA Smart Pay Smart Card - Travel - Purchase Cards**   **Contract**
- **1996 - Treasury FMS pilots E-Cash - E-Check - E-Payments**    **Pilots**
- **1996 - Federal Smart Card Project Managers**        **Association**
- **1999 - GSA Willow Wood Smart Card Pilot**        **Big Pilot**
- **2000 - GSA Government Smart Card Contract**       **Contract**
- **2000 - Defense Rollout**                   **Big Rollout**
- **2002 - Defense Rollout + others**            **Big Rollout**
- **2003 - Defense Rollout + State Department + others**    **Big Rollout**
- **2004 - Defense Rollout + NASA, Interior, GSA, VA**     **Big Rollout**
- **2004 - Federal Identity Credentialing Committee (FICC)**   **Policy Convergence**
- **2004 - Presidential Directive of Common Fed'l ID Standard**   **Common Standard**
- **2005+ Transportation Worker(TWIC), Transit, Passport, Visit**   **Expansion**

# Issues and Outlook

IAB work groups actively on-going

IAB technology recommendations by 12.23.2004

FIPS 201 by 02.25.2005

Issues

- Interoperability
- Backward compatibility
- Don't move too fast too soon

Outlook

A common Federal Identity Credential standard that interoperates among agencies with all minimum capabilities declared, and allowing for the advance in technologies

There will be net savings available if sought

# Continuing Federal Activities

- We've come this far without the required charter and structure – this kind of structure is needed as we proceed

- Increased deployment of Federal Identity Credential Smart Cards by Federal Agencies

- Quasi-Governmental Federal Agencies such as Transportation Worker Identification Credential broadens scope to 16 million

- There is an effort for Federal acquisition contracts to change to allow State Governments will be able to buy these cards and infrastructure

Source: John G Moore, GSA, Dec 2004